

THREE OF CLAYTON'S OAKS IN THE BRITISH MUSEUM.

C. S. SARGENT.

A VISIT a few months ago to the region in Gloucester County, Virginia, where John Clayton lived for many years, led me to examine last summer the specimens of Oaks collected by him and preserved in the British Museum. Three of these specimens are of some interest.

1. Clayton's *Quercus rubra* seu *Hispanica* hic dicta, foliis amplis varie profundeque incisus was described by Gronovius as *Quercus foliorum sinubus obtusis, angulis lanceolatis seta terminatis integerrimis vix divisus*. This is the first synonym quoted by Linnaeus under his description of *Quercus rubra* in the *Species Plantarum* and that on which his diagnostic phrase was based. The other synonym quoted by Linnaeus and by Gronovius is *Quercus esculi divisura, foliis amplioribus aculeatis* of Plukenet & Catesby. Plukenet's figure of a single leaf might possibly pass for a leaf of the Red Oak, although it looks more like some form of *Q. coccinea* or of *Q. velutina*. Catesby's plate well represents *Q. falcata*, although a single unattached and uncolored fruit on this plate might represent a small fruit of *Quercus rubra*. Catesby calls his Oak the Red Oak. In the southern states *Quercus falcata* is always called Red Oak, and if the name Spanish Oak is ever used for it this name is not common. Clayton's specimen is clearly the digitate form of *Quercus falcata*. Linnaeus's description of his *Quercus rubra*, "*Q. foliis obtuse-sinuatis, setaceo-mucronatis*," means little and might apply to several species as well as to *Q. rubra*, and if his species was based on the descriptions of earlier authors *Q. rubra* should be the name of the tree now called *Q. falcata* or *Q. digitata*. Linnaeus's *Q. rubra* β in the *Species Plantarum*, judging by the figures of Catesby & Plukenet quoted by him, although they represent only single leaves, was probably what we now call *Quercus rubra*.

2. This is a specimen of a single leaf of *Quercus velutina*, under which is written "*Quercus foliorum, sinubus obtusis, angulis lanceolatis seta terminatis integerrimis vix divisus, Fl. Virg. p. 117, our common black Oak, Bartram.*"

Quercus foliis obtuse sinuatis setaceo-mucronatis, Linn. Syst. gen. 949, n. 9."

Clayton's description was not quoted by Linnaeus and Clayton's

specimen may not have been collected before 1753. Clayton, confounding two species, referred his specimen of the Black Oak to the species which Linnaeus called *Q. rubra* in the *Species Plantarum* and in the tenth edition of the *Systema Naturae*.

3. Clayton's *Quercus Castaneae foliis, glandibus maximis* is a flowering specimen with leaves nearly one-third grown. The long petioles and the serrature of the leaves show that it is *Quercus Muehlenbergii*. Two Chestnut Oaks naturally grow in Gloucester County, where *Q. Michauxii* is the more common of the two. I saw only a few trees of *Q. Muehlenbergii* and only one individual of *Q. Prinus*, a very large tree growing in the grounds of an old colonial estate where it had probably been planted. Clayton evidently confounded two species as his "glandibus maximis" must have belonged to *Q. Michauxii*, and it is probable that two and perhaps three Chestnut Oaks are included in Linnaeus's *Quercus Prinus*. "Denticulis rotundatis uniformibus" in his description would apply to *Q. Prinus* and *Q. Michauxii*. Plukenet's figure quoted by Linnaeus represents a single leaf which might belong to either *Q. Prinus* or *Q. Michauxii*, but Catesby's full-page plate and his description also quoted by Linnaeus clearly represent *Q. Michauxii*. It seems necessary therefore to restore the name *Q. Prinus* L. to the tree now called *Q. Michauxii* Nutt. and adopt again for the Rock Chestnut Oak the name of *Q. montana* Willd., the name used for this tree by Pursh and by Gray in all editions of his *Manual* published during his life and by other authors until Engelmann selected the Rock Chestnut Oak as the type of *Q. Prinus* on the mistaken idea that it was the common Chestnut Oak of Virginia, meaning by Virginia, of course, that part of the state in which the early botanists collected. *Quercus Prinus* is an Appalachian tree and rarely grows near the coast, and it is *Q. Michauxii* which would have attracted the attention of Banister, Clayton and Catesby who worked chiefly in the coast region.

Photographs of these three specimens of Clayton may be seen in the Herbarium of the Arboretum.

ARNOLD ARBORETUM.